**Tech Talent Pipeline (TTP), Lehman College**

**Bootcamp Report**

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Tech Talent Pipeline Residency Program

My 4 weeks Tech Talent Pipeline (TTP) Bootcamp was based on learning several skills that benefited me to have some hands-on tech experiences in the tech industry. TTP Residency program provides professional opportunities in tech for the Computer Science majors students. The program started with a four-week training on building web applications and workplace skills conducted by Lehman College, Tech Talent Pipeline. The Bootcamp started in May 29th and ended June 23nd, 2019.

**The 1st week** was gaining a good understanding of how to create a website. Creating a website requires to know parts of a website. Thus, we learn HTML, CSS, and JavaScript.

* HTML (Hypertext Markup Language) is the standard markup language for creating web pages and web applications.
* CSS (Cascading Style Sheets) is a style sheet language used for describing the presentation of a document written in HTML. There are three ways to add CSS to a web page: inline, internal, and external.
* JavaScript is a high-level, interpreted programming language that is used to create interactive effects within web browsers.

Understanding HTML, CSS, and JavaScript can help anyone who works with the web; designers can create more attractive and usable sites, marketers can better communicate with their audience. Hence, it was a good start for me. After learning these three parts, I was assigned to create a website with three pages, which I did successfully.

**The second week** was intense learning. More of JavaScript, framework, and interactive with some commands in the terminal were taught.

* NodeJS -an open-source, cross-platform JavaScript run-time environment- executes JavaScript code outside of a browser. I must understand why NodeJS is use, how it is used to run a program, how to use it to install packages.
* Understand JSON and AJAX and their methods to efficient use.
* NodeJS Express usage
* jQuery: understand how it works and how to make use of it in my scripts
* Templating: a “template language” has a defined syntax beyond plain HTML. It has Model View Controllers(MVC)- an architectural pattern used for developing user interfaces that divides an application into three interconnected parts.
* Terminal command such as cd (change directory), ls (list files and folders in a directory), touch filename (create a file), mkdir folder name (create a directory), and so on.

One of the important achievement of this week was the development of a new project using an API, which provides the user of the web page a mean to search for his or her favorite film.

The third week focused on learning git, GitHub, SSH, and vim.

* Git is a version control system meant to make it easier to have multiple versions of code sometimes across multiple developers or teams. It allows developers to work together worldwide on code without stepping on each other’s toes.
* GitHub: create an account at github.com with a repository to host my projects.
* SSH- secure shell- provides the mean to communicate securely with servers around the world.
* Vim- a command line text editor- is used to edit a file or program from the terminal.

**The fourth week** involved learning database, Heroku, introduction to ECMAScript, and ReactJS.

* Database: understand the key word to create, delete, insert, retrieve database and its data. This study implies learning relational database system such as PostgreSQL, MySQL.
* Heroku- a cloud platform as a service supporting several programming languages is used to host my web page.
* ECMAScript (ECMA: European Compute Manufacturer Association) and its transpilers, which take source code written in one language and transforming into another language or a lower version of the same language. For example, babel converts ES6 code into ES5.
* ReactJS- a JS library for building user interfaces is built by Facebook.

The last day of the Bootcamp was dedicated to the presentation of all resident projects, which include solo and group projects.

My experience as resident in Tech Pipeline Program was beneficial and an open door for my first step in tech industry.

During the Bootcamp, I create several projects assigned by our institutor within which two had repository in my GitHub (portfolio, API). I was able to learn different languages, frameworks at the same time, and the most important is I gained new knowledge in database, terminal line and git. I also made use of my new skills while creating my projects. However, it was not an easy path.

At the beginning of the Bootcamp, I bought a new lap top, because mine was slow and running out of the space. The Bootcamp started while I was fasting, and I might stay long in the night studying. This condition made hard for me to follow the pace of the training. Since, when fasting as Muslim we have little time for rest, studying long hours a day interfered into the speed of my acquisition of new knowledge. I had to request help from others Bootcamp residents. I was constantly in need of help, which made me look as unfit to the Bootcamp. I was also sick from the less rest I got, but these challenges did not stop me to acquire new skills.

I improved skills I already knew and gained several new skills while being in the Bootcamp, however, I still need improvement in NodeJS and its packages usage, I started ReactJS and did not go far to create a web page using it. I was working on hosting my web page in Heroku, but I still need help.

Overall, my experience in Bootcamp was beneficial. I spent a lot of time learning new things, I found that I was well trained in certain areas that helped me substantially in my projects I acquired many new technical skills throughout the program term. I acquired new knowledge in Databases that was missed when I took database class, I was able to create several websites during and after the Bootcamp. The main part was my exposure to the terminal.